

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 68 (Cancelled).

69. (New) A carbon nanotube synthesized on a substrate, wherein the nanotube has a length of at least 2000 microns.

70. (New) The nanotube of claim 69 wherein the nanotube has a length greater than 1 mm.

71. (New) The nanotube of claim 69 wherein the nanotube has a length greater than 1 cm.

72. (New) The nanotube of claim 69 wherein the nanotube is an uninterrupted single-walled carbon nanotube.

73. (New) The nanotube of claim 69 wherein the nanotube is made by a process comprising:

providing a catalyst on the substrate; and

directing a feeding gas in a predetermined direction over the catalyst such that the nanotube grows from the catalyst in the predetermined direction.

74. (New) The nanotube of claim 69 wherein the nanotube comprises one of a plurality of substantially aligned carbon nanotubes, each having a length of at least 2000 microns.

75. (New) The nanotube of claim 74 wherein each of the plurality of substantially aligned carbon nanotubes is substantially isolated from the other nanotubes.

76. (New) The nanotube of claim 69 wherein the nanotube is located in a crossed network array of carbon nanotubes, each having a length of at least 2000 microns.

77. (New) The nanotube of claim 69 wherein the nanotube comprises multiple metal electrodes on the nanotube.

78. (New) The nanotube of claim 69 further comprising multiple devices along the length of the nanotube.

79. (New) A system comprising a carbon nanotube and multiple devices along the length of the nanotube.

80. (New) The system of claim 79 wherein the nanotube has a length of at least 2000 microns.

81. (New) The system of claim 79 wherein the nanotube has a length greater than 1 mm.

82. (New) The system of claim 79 wherein the nanotube has a length greater than 1 cm.

83. (New) The system of claim 79 wherein the nanotube is an uninterrupted single-walled carbon nanotube.

84. (New) A method for fabricating a nanotube on a substrate, comprising:
providing a catalyst on the substrate;
heating the catalyst; and
providing a feeding gas over the catalyst to grow a nanotube having length of at least of at least 2000 microns.

85. (New) The method of claim 84 wherein the nanotube is an uninterrupted single-walled carbon nanotube.

86. (New) The method of claim 85 wherein the nanotube has a length of at least 1 cm.

87. (New) The method of claim 84 wherein:
the catalyst comprises a catalyst island; and

the step of providing the feeding gas comprises directing the feeding gas in a predetermined direction over the catalyst island such that the nanotube grows from the catalyst island in the predetermined direction.

88. (New) The method of claim 84 wherein:

the catalyst comprises a plurality of catalyst islands; and

the step of providing the feeding gas comprises directing the feeding gas in a predetermined direction over the catalyst islands such that a plurality of carbon nanotubes, each having length of at least of at least 2000 microns, grow from the catalyst islands in the predetermined direction.